

REMARKS

Claims 1-37 were previously pending in this patent application. Claims 1-37 stand rejected. Herein, Claims 1, 3, 4, 5, 10, 12, 13, 14, 18, 20, 30, and 32 have been amended. Accordingly, after this Amendment and Response, Claims 1-37 remain pending in this patent application. Further examination and reconsideration in view of the claim amendments and arguments set forth below is respectfully requested.

35 U.S.C. Section 102(e) Rejections

Claims 1, 2, 3, 6, 10, 11, 12, 15, 18, 19, 20, and 22 stand rejected under 35 U.S.C. 102(e) as being anticipated by Iwata, U.S. Patent No. 6,172,621 (hereafter Iwata). These rejections are respectfully traversed.

Independent Claim 1 recites:

A method of processing digital video data for displaying, said method comprising the steps of:

a) parsing said digital video data to recover a decoding order of said digital video data;

b) ***while parsing said digital video data, decoding a variable length coding format of said parsed digital video data; and***

c) ***while decoding said variable length coding format of said parsed digital video data, decompressing*** said decoded digital video data to facilitate displaying said digital video data on an electronic display device, wherein said ***steps a) and c) are performed according to time sharing criteria.*** (emphasis added)

It is respectfully asserted that Iwata does not disclose the present invention as recited in Independent Claim 1. In particular, Iwata is directed to providing a coding and decoding apparatus having a plurality of processing

apparatuses, capable of carrying out encoding and decoding. [Iwata; Col. 4, line 65 through Col. 5, line 3]. Moreover, Iwata discloses that the processing of the digital video data is carried out sequentially for every video segment. [Iwata; Col. 4, lines 7-28, Figures 6-7]. That is, deframing (or preparsing) at Step S131 is performed on a video segment of digital video data, then the deframed video data is subjected to variable length decoding at Step S132, then the variable length decoded data is subjected to inverse quantization at Step 133, and then the inverse quantized DCT result is subjected to inverse DCT (or decompressing) at Step S134. Id. Moreover, the timing chart of the processing of video segments of digital video data in a CPU is shown in Figure 7, illustrating that deframing (or preparing), decoding, and decompressing are performed sequentially in time. Id. Additionally, the timing chart of Figure 16 of Iwata shows that a first processor sequentially performs Steps S131 (deframing) and S132 (decoding) on a first video segment. Continuing, the timing chart of Figure 16 depicts the first processor sequentially performing Steps S131 (deframing) and S132 (decoding) on a second video segment while a second processor sequentially performs Steps S133 (inverse quantization) and S134 (decompressing) on the first video segment.

Furthermore, the timing chart of Figure 20 of Iwata shows that a first processor sequentially performs Steps S131 (deframing) and S132 (decoding) on a first video segment while a second processor sequentially performs Steps S131 (deframing) and S132 (decoding) on a second video segment and while a third processor sequentially performs Steps S131 (deframing) and S132

(decoding) on a third video segment. Continuing, the timing chart of Figure 20 depicts the first processor sequentially performing Steps S133 (inverse quantization) and S134 (decompressing) on the first video segment while the second processor sequentially performs Steps S133 (inverse quantization) and S134 (decompressing) on the second video segment and while the third processor sequentially performs Steps S133 (inverse quantization) and S134 (decompressing) on the third video segment.

However, Iwata does not disclose a processing step such as while preparsing the digital video data, decoding a variable length coding format of the preparsed digital video data. Moreover, Iwata does not disclose a processing step such as while decoding the variable length coding format of the preparsed digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparing and decompressing are performed according to time sharing criteria.

Unlike Iwata, Independent Claim 1 is directed to a method of processing digital video data for displaying. The method includes the step of preparsing the digital video data. Additionally, the method includes the step of while preparsing the digital video data, decoding a variable length coding format of the preparsed digital video data. Furthermore, the method includes the step of while decoding the variable length coding format of the preparsed digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparing and

decompressing are performed according to time sharing criteria. While Iwata is directed to sequentially performing preparsing and decoding, Independent Claim 1 is directed to decoding preparsed digital video data while preparsing the digital video data. Similarly, While Iwata is directed to sequentially performing decoding and decompressing, Independent Claim 1 is directed to decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device while decoding the variable length coding format of the preparsed digital video data, wherein preparing and decompressing are performed according to time sharing criteria. Therefore, it is respectfully submitted that Independent Claim 1 is not anticipated by Iwata and is in condition for allowance.

Dependent Claims 2, 3, and 6 are dependent on allowable Independent Claim 1, which is allowable over Iwata. Hence, it is respectfully submitted that Dependent Claims 2, 3, and 6 are patentable over Iwata for the reasons discussed above.

With respect to Independent Claim 10, it is respectfully submitted that Independent Claim 10 recites similar limitations as in Independent Claim 1. In particular, the computer-readable medium of Independent Claim 10 includes computer-executable instructions for performing a method of processing digital video data for displaying. The method includes the step of preparsing the digital video data. Additionally, the method includes the step of while preparsing the digital video data, decoding a variable length coding format of the preparsed

digital video data. Furthermore, the method includes the step of while decoding the variable length coding format of the preparsed digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparsing and decompressing are performed according to time sharing criteria. Therefore, Independent Claim 10 is allowable over Iwata for reasons discussed in connection with Independent Claim 1.

Dependent Claims 11, 12, and 15 are dependent on allowable Independent Claim 10, which is allowable over Iwata. Hence, it is respectfully submitted that Dependent Claims 11, 12, and 15 are patentable over Iwata for the reasons discussed above.

With respect to Independent Claim 18, it is respectfully submitted that Independent Claim 18 recites similar limitations as in Independent Claim 1. In particular, the apparatus of Independent Claim 18 includes a processor for preparsing digital video data and a variable length decoding unit for decoding the preparsed digital video data. In particular, the variable length decoding unit is configured to decode the variable length coding format of the preparsed digital video data while the processor preparses the digital video data. Therefore, Independent Claim 18 is allowable over Iwata for reasons discussed in connection with Independent Claim 1.

Dependent Claims 19, 20, and 22 are dependent on allowable Independent Claim 18, which is allowable over Iwata. Hence, it is respectfully submitted that Dependent Claims 19, 20, and 22 are patentable over Iwata for the reasons discussed above.

35 U.S.C. Section 103(a) Rejections

Claims 7, 8, 9, 16, 17, 28, and 29 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata, U.S. Patent No. 6,172,621 (hereafter Iwata) in view of Washington, U.S. Patent No. 6,389,171 (hereafter Washington). These rejections are respectfully traversed.

Dependent Claims 7, 8, and 9 are dependent on allowable Independent Claim 1, which is allowable over Iwata. Moreover, Washington does not disclose a method of processing digital video data for displaying, as recited in Claim 1. The method includes the step of preparsing the digital video data. Additionally, the method includes the step of while preparsing the digital video data, decoding a variable length coding format of the preparsed digital video data. Furthermore, the method includes the step of while decoding the variable length coding format of the preparsed digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparsing and decompressing are performed according to time sharing criteria. Hence, it is respectfully submitted that

Dependent Claims 7, 8, and 9 are patentable over Iwata and Washington for the reasons discussed above.

Dependent Claims 16 and 17 are dependent on allowable Independent Claim 10, which is allowable over Iwata. Moreover, Washington does not disclose a computer-readable medium that includes computer-executable instructions for performing a method of processing digital video data for displaying, as recited in Claim 10. The method includes the step of preparing the digital video data. Additionally, the method includes the step of while preparing the digital video data, decoding a variable length coding format of the prepared digital video data. Furthermore, the method includes the step of while decoding the variable length coding format of the prepared digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparing and decompressing are performed according to time sharing criteria. Hence, it is respectfully submitted that Dependent Claims 16 and 17 are patentable over Iwata and Washington for the reasons discussed above.

Dependent Claims 28 and 29 are dependent on allowable Independent Claim 18, which is allowable over Iwata. Moreover, Washington does not disclose an apparatus that includes a processor for preparing digital video data and a variable length decoding unit for decoding the prepared digital video data, as recited in Claim 18. In particular, the variable length decoding unit is configured to decode the variable length coding format of the prepared digital

video data while the processor prepares the digital video data. Hence, it is respectfully submitted that Dependent Claims 28 and 29 are patentable over Iwata and Washington for the reasons discussed above.

Claims 21, 23, 24, 25, 26, 30, 31, 32, 33, and 34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata, U.S. Patent No. 6,172,621 (hereafter Iwata) in view of Jan, U.S. Patent No. 5,363,097 (hereafter Jan). These rejections are respectfully traversed.

Dependent Claims 21, 23, 24, 25, and 26 are dependent on allowable Independent Claim 18, which is allowable over Iwata. Moreover, Jan does not disclose an apparatus that includes a processor for preparsing digital video data and a variable length decoding unit for decoding the preparsed digital video data, as recited in Claim 18. In particular, the variable length decoding unit is configured to decode the variable length coding format of the preparsed digital video data while the processor prepares the digital video data. Hence, it is respectfully submitted that Dependent Claims 21, 23, 24, 25, and 26 are patentable over Iwata and Jan for the reasons discussed above.

With respect to Independent Claim 30, it is respectfully submitted that Independent Claim 30 recites similar limitations as in Independent Claim 1. In particular, the digital video data decoder of Independent Claim 30 includes a processor for preparsing digital video data and a variable length decoding unit for decoding the preparsed digital video data. In particular, the variable length

decoding unit is configured to decode the variable length coding format of the prepared digital video data while the processor prepares the digital video data. Therefore, Independent Claim 30 is allowable over Iwata for reasons discussed in connection with Independent Claim 1.

Moreover, Jan does not disclose a digital video data decoder that includes a processor for preparsing digital video data and a variable length decoding unit for decoding the prepared digital video data, as recited in Independent Claim 30. In particular, the variable length decoding unit is configured to decode the variable length coding format of the prepared digital video data while the processor prepares the digital video data. Hence, it is respectfully submitted that Independent Claim 30 is patentable over Iwata and Jan for the reasons discussed above.

Dependent Claims 31, 32, 33, and 34 are dependent on allowable Independent Claim 30, which is allowable over Iwata and Jan. Hence, it is respectfully submitted that Dependent Claims 31, 32, 33, and 34 are patentable over Iwata and Jan for the reasons discussed above.

Claims 36 and 37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata, U.S. Patent No. 6,172,621 (hereafter Iwata), in view of Jan, U.S. Patent No. 5,363,097 (hereafter Jan), and further in view of

Washington, U.S. Patent No. 6,389,171 (hereafter Washington). These rejections are respectfully traversed.

Dependent Claims 36 and 37 are dependent on allowable Independent Claim 30, which is allowable over Iwata and Jan. Moreover, Washington does not disclose a digital video data decoder that includes a processor for preparsing digital video data and a variable length decoding unit for decoding the preparsed digital video data, as recited in Independent Claim 30. In particular, the variable length decoding unit is configured to decode the variable length coding format of the preparsed digital video data while the processor preparses the digital video data. Hence, it is respectfully submitted that dependent Claims 36 and 37 are patentable over Iwata, Jan, and Washington for the reasons discussed above.

Claims 4, 5, 13, 14, 27, and 35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Iwata, U.S. Patent No. 6,172,621 (hereafter Iwata) in view of Peng et al., U.S. Patent No. 6,496,199 (hereafter Peng). These rejections are respectfully traversed.

Dependent Claims 4 and 5 are dependent on allowable Independent Claim 1, which is allowable over Iwata. Moreover, Peng does not disclose a method of processing digital video data for displaying, as recited in Claim 1. The method includes the step of preparsing the digital video data. Additionally,

the method includes the step of while preparsing the digital video data, decoding a variable length coding format of the preparsed digital video data. Furthermore, the method includes the step of while decoding the variable length coding format of the preparsed digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparing and decompressing are performed according to time sharing criteria. Hence, it is respectfully submitted that Dependent Claims 4 and 5 are patentable over Iwata and Peng for the reasons discussed above.

Dependent Claims 13 and 14 are dependent on allowable Independent Claim 10, which is allowable over Iwata. Moreover, Peng does not disclose a computer-readable medium that includes computer-executable instructions for performing a method of processing digital video data for displaying, as recited in Claim 10. The method includes the step of preparsing the digital video data. Additionally, the method includes the step of while preparsing the digital video data, decoding a variable length coding format of the preparsed digital video data. Furthermore, the method includes the step of while decoding the variable length coding format of the preparsed digital video data, decompressing the decoded digital video data to facilitate displaying the digital video data on an electronic display device, wherein preparing and decompressing are performed according to time sharing criteria. Hence, it is respectfully submitted that Dependent Claims 13 and 14 are patentable over Iwata and Peng for the reasons discussed above.

Dependent Claim 27 is dependent on allowable Independent Claim 18, which is allowable over Iwata. Moreover, Peng does not disclose an apparatus that includes a processor for preparsing digital video data and a variable length decoding unit for decoding the preparsed digital video data, as recited in Claim 18. In particular, the variable length decoding unit is configured to decode the variable length coding format of the preparsed digital video data while the processor preparses the digital video data. Hence, it is respectfully submitted that Dependent Claim 27 is patentable over Iwata and Peng for the reasons discussed above.

Dependent Claim 35 is dependent on allowable Independent Claim 30, which is allowable over Iwata. Moreover, Peng does not disclose a digital video data decoder that includes a processor for preparsing digital video data and a variable length decoding unit for decoding the preparsed digital video data, as recited in Independent Claim 30. In particular, the variable length decoding unit is configured to decode the variable length coding format of the preparsed digital video data while the processor preparses the digital video data. Hence, it is respectfully submitted that Dependent Claim 35 is patentable over Iwata and Peng for the reasons discussed above.

CONCLUSION

It is respectfully submitted that the above arguments and remarks overcome all rejections. For at least the above-presented reasons, it is respectfully submitted that all remaining claims (Claims 1-37) are now in condition for allowance.

The Examiner is urged to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

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Respectfully submitted,

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